

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
PN Comments – Advanced Communication Provisions	)	CG Docket No. 10-213
Of the Twenty-First Century Communications and	)	
Video Accessibility act of 2010	)	

COMMENTS IN RESPONSE TO PUBLIC NOTICE

Communication Service For The Deaf, Inc.

November 22, 2010

## **I. Introduction**

Communication Service for the Deaf, Inc. (CSD) submits these comments in response to the Federal Communications Commission's (FCC) Notice of Proposed Rulemaking on the Advanced Communication Provisions of the Twenty-First Century Communications and Video Accessibility Act of 2010, CG Docket No. 10-213.

CSD is a private, non-profit organization that provides programs and services intended to increase communication, independence, productivity, and self-sufficiency for all individuals who are deaf and hard of hearing. Due to CSD's close relationships in working with and for the deaf and hard of hearing communities, CSD has a specialized understanding of the unique communication needs of deaf and hard of hearing people.

Emergency situations and disasters in the recent few years have exposed serious flaws in the emergency preparedness system, both on the national and state levels, and particularly its weaknesses in reaching people who are deaf or hard of hearing. While changes have been implemented to improve the system and its responsiveness, a cohesive and mainstreamed system that effectively alerts deaf and hard of hearing people in cases of emergency has not been developed. CSD wishes to take this opportunity to encourage the FCC, in conjunction with other federal and state agencies responsible for emergency preparedness, as well as private manufacturers, to take the steps now as technology advances continue to be made to look ahead for the possibility of creating standards for emergency broadcasting and thereby increasing accessibility through new media platforms and devices.

## **II. New Media Platforms and Devices Must be Compatible with Devices Commonly Used by Persons with Disabilities.**

People who are deaf or hard of hearing basically rely upon two modalities, visual and tactile, in order to communicate or from which to receive information. For purposes of deaf and hard of hearing people, the phrase "devices commonly used by persons with disabilities to achieve access" include webcams, as well as specialized equipment, such a flashing light system<sup>1</sup> or a wireless vibrating alert<sup>2</sup> system. These devices are currently readily available on the mainstreamed market.

Convergence, the combination of distinct technological services and functions into a common device, has been discussed and debated for many years. Advances in technology are now making various embodiments of convergence a reality. Internet enabled televisions and smart televisions, along with a variety of applications now provide for integration of audio and video entertainment, telecommunications, email and cloud-based computing services. An ever-expanding array of smart phones provide mobile web, video, and telecommunications services.

As with hearing individuals, Internet enabled devices (televisions, or television and set-top box combinations) are quickly becoming the center for all types of communication. As such these Internet enabled devices should be considered as equipment used for interoperable video conferencing services. These devices may have built-in webcams or may utilize add-on webcams<sup>3</sup>.

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<sup>1</sup> See <http://www.zvrs.com/z-series/z-340/flasher-tripod-pricing> for an example of a flashing light system. It is a very simple device that requires only a headphone set jack.

<sup>2</sup> See [http://www.amazon.com/Clarity-AlertMaster-Personal-Signaler/dp/B001S4HV5O/ref=sr\\_1\\_8?ie=UTF8&qid=1289936260&sr=8-8](http://www.amazon.com/Clarity-AlertMaster-Personal-Signaler/dp/B001S4HV5O/ref=sr_1_8?ie=UTF8&qid=1289936260&sr=8-8) for an example of a vibrating system.

<sup>3</sup> See <http://www.skype.com/intl/en-us/get-skype/on-your-tv/> for illustrative examples of videoconferencing (Skype) enabled televisions.

Collectively, we will refer to these devices as media-convergent devices.

While these advances are arguably wonderful for society as a whole, without specific mandates by the FCC related to the hardware, network connectivity, and systems deployed, people with disabilities will be left further behind, rather than gaining functional equivalence.

The emergence of such media-convergent devices carry with it a opportune time for the FCC to establish standards at the onset for the inclusion of accessibility features that can be used by deaf and hard of hearing people, but which could also be utilized by non-disabled people for their own purposes.

The FCC should mandate that the manufacturers of these devices meet at least two requirements to provide access, in addition to extending caption decoding requirements. First, each of these Internet-enable devices should be able to support real-time video conferencing with a video standard of no less than the standard established for video relay services at the time of manufacture. This same standard can be used for Video Relay Services, Remote Video Interpreting, and Point-to-Point video communication.

Second, the FCC should mandate that each of these internet enabled devices include a dedicated port for purposes of selectively triggering an alerting device such as a flasher.

### **III. Accessibility of Information Content Can be Achieved with the Implementation of Industry-Wide Standards.**

The development of standards by the FCC for accessibility features installed on specific devices is not a new concept. Pursuant to the Television Decoder Circuitry Act of 1990, which mandated that all US-manufactured televisions with screens thirteen inches or larger must contain built-in closed caption decoders<sup>3</sup>, the FCC established the standards which decoder-equipped televisions had to meet. As a result, captioning is now readily available and visible for any, deaf and hearing alike, who may wish to use it.

Many media-convergent devices, allow for outstanding resolution in their “television” or “Video Programming” modes of operation. However, many of the applications, either native or third party, utilize significantly reduced resolutions. It is critical, that these media-convergent devices, support video conferencing applications, that are fully compatible with the then current standards established for video relay services. In particular, the resolution and frame-rate for the video conferencing function is of critical importance to the communications capability for the deaf and hard-of-hearing. While hearing users can obtain high quality communication with reasonable good audio, and some video content, without proper resolution and frame rate, the fluidity of motion necessary to understand American Sign Language, or any other sign language is significantly degraded and the communication is effectively lost.

Additionally, companies that manufacture media-convergent devices should be mandated to have a port available on their products for the specific purpose of supporting these devices commonly used by people who are deaf or hard of hearing to achieve access. The devices could be required to register its MAC address with a database shared amongst 911 emergency service providers. Federal, state, and local entities can use the knowledge of this particular port to transmit emergency broadcast information through that port, otherwise known as reverse 911 calls. When the emergency broadcast signal is transmitted to the media device, it can trigger the alert system(s) and the resulting flashing light

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<sup>3</sup> 47 U.S.C. 303(u), 330(u)

or vibrating lets the deaf or hard of hearing person know that there is a broadcast message (in text or captions, or even in sign language) waiting for them.

CSD understands that, currently, there may be no uniform system that allows emergency broadcasting but believes that there is potential in developing such a system that could be utilized on both the federal and state/local levels. CSD recommends that the FCC develop an advisory committee with the Interagency Coordinating Council on Emergency Preparedness and Individuals with Disabilities<sup>4</sup> (ICC) to determine how the FCC may establish rules and regulations that are consistent with and supports the findings of the ICC on emergency preparedness. It would also be beneficial if manufacturers of such alert systems were included in the dialogue in order to get their technical expertise on what types of port could be used as the standard that should be installed on all new media platforms and devices to accommodate these devices.

#### **IV. Conclusion**

CSD believes that the FCC is in a position to leverage accessibility standards for new media devices in order to ensure that deaf and hard of hearing people's communication needs are not forgotten as technology continues to evolve. Further, the FCC's development of such standards will play a vital role in emergency preparedness by maximizing the potential of such media-convergent devices to also act as a way to reach out to an untold number of deaf and hard of hearing people who would otherwise be left behind and be placed at greater risk during emergencies. CSD wishes to encourage the FCC to consider the long-term benefits such standards could create in developing its rules and regulations for this notice.

Respectfully submitted,

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<sup>4</sup> See [www.disabilitypreparedness.gov](http://www.disabilitypreparedness.gov) for a listing of the federal agencies involved in developing plans and systems for Emergency Preparedness.